5,408,642 Apr. 18, 1995

FIG. 1

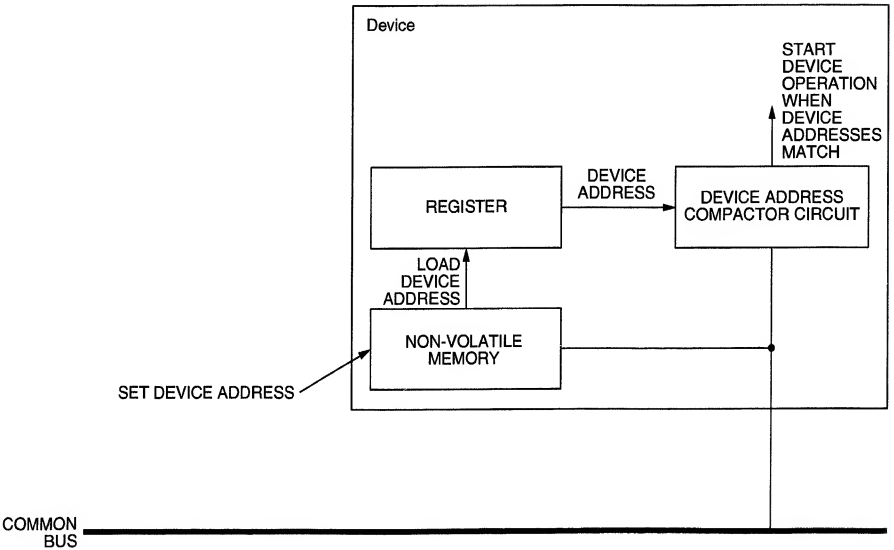


FIG. 2

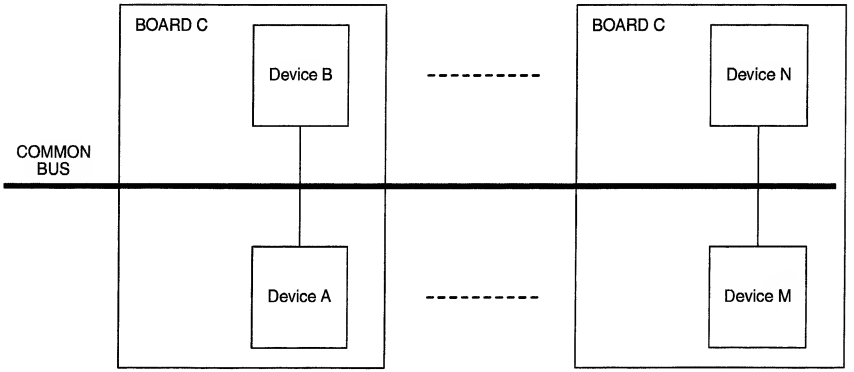
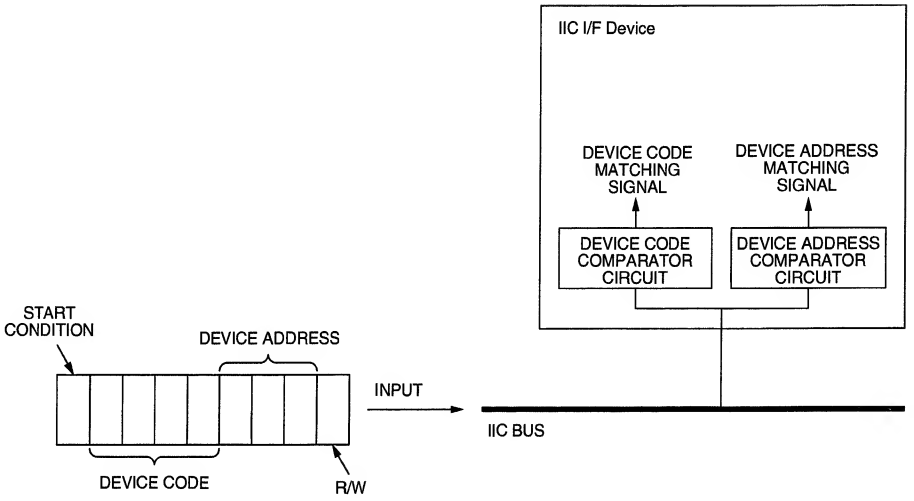


FIG. 3


IIC I/F Device
DEVICE CODE MATCHING SIGNAL
DEVICE ADDRESS MATCHING SIGNAL
DEVICE CODE COMPARATOR CIRCUIT
DEVICE ADDRESS COMPARATOR CIRCUIT
START CONDITION
DEVICE ADDRESS
INPUT
IIC BUS
DEVICE CODE
R/W

EP0802534A2

FIG. 4

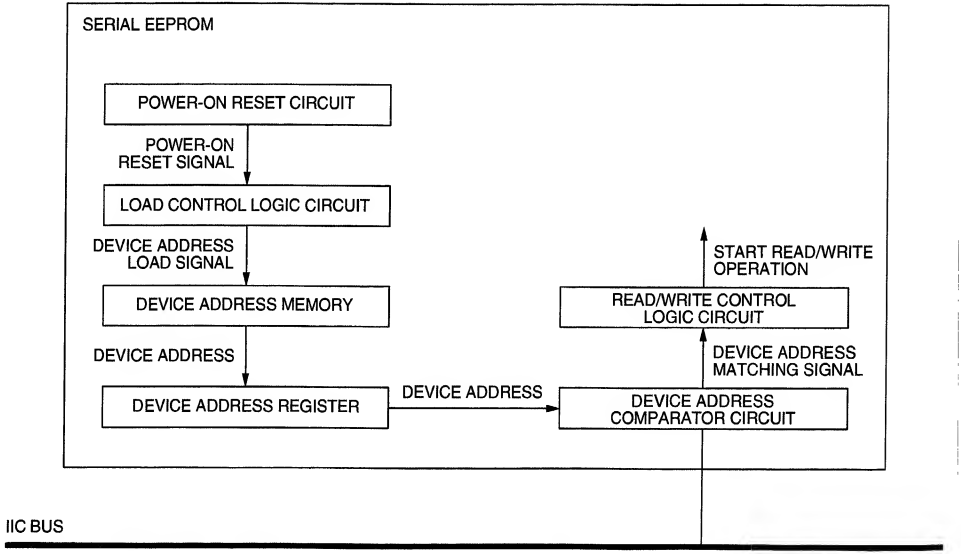
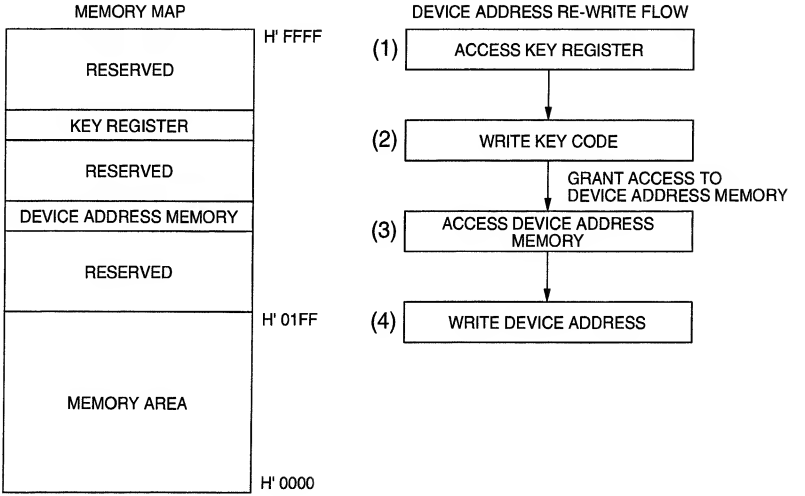


FIG. 5


MEMORY MAP
H' FFFF
RESERVED
KEY REGISTER
RESERVED
DEVICE ADDRESS MEMORY
RESERVED
H' 01FF
MEMORY AREA
H' 0000
DEVICE ADDRESS RE-WRITE FLOW
(1)
ACCESS KEY REGISTER
(2)
WRITE KEY CODE
GRANT ACCESS TO
DEVICE ADDRESS MEMORY
(3)
ACCESS DEVICE ADDRESS
MEMORY
(4)
WRITE DEVICE ADDRESS

T0h02T'hE000001

FIG. 6

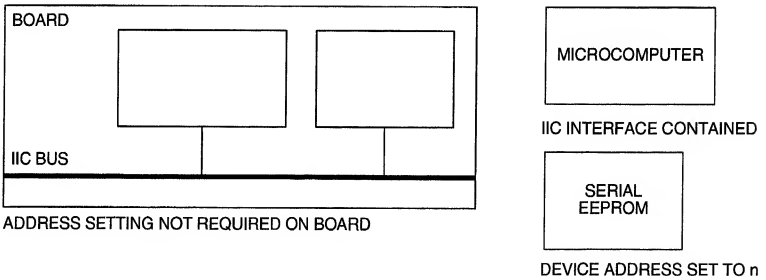


FIG. 7

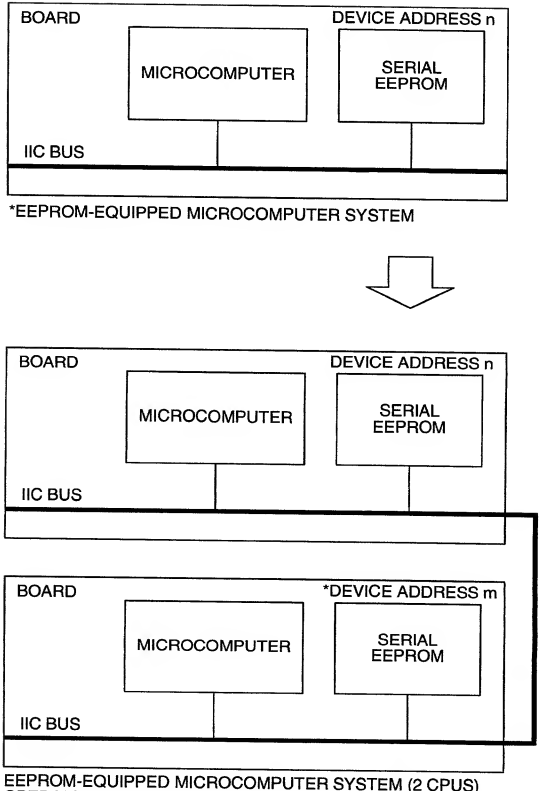
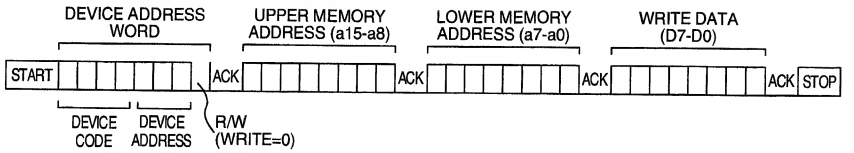

BOARD
DEVICE ADDRESS n
MICROCOMPUTER
SERIAL EEPROM
IIC BUS
*EEPROM-EQUIPPED MICROCOMPUTER SYSTEM
BOARD
DEVICE ADDRESS n
MICROCOMPUTER
SERIAL EEPROM
IIC BUS
BOARD
*DEVICE ADDRESS m
MICROCOMPUTER
SERIAL EEPROM
IIC BUS
EEPROM-EQUIPPED MICROCOMPUTER SYSTEM (2 CPUS)
OPERABLE AS SERIAL EEPROMS HAVING ADDRESSES n,m

FIG. 8

COMMUNICATION PROTOCOL (FOR WRITE OPERATION)



COMMUNICATION PROTOCOL (FOR READ OPERATION)

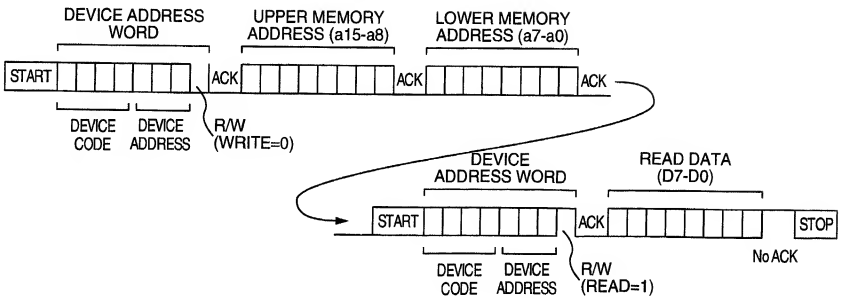
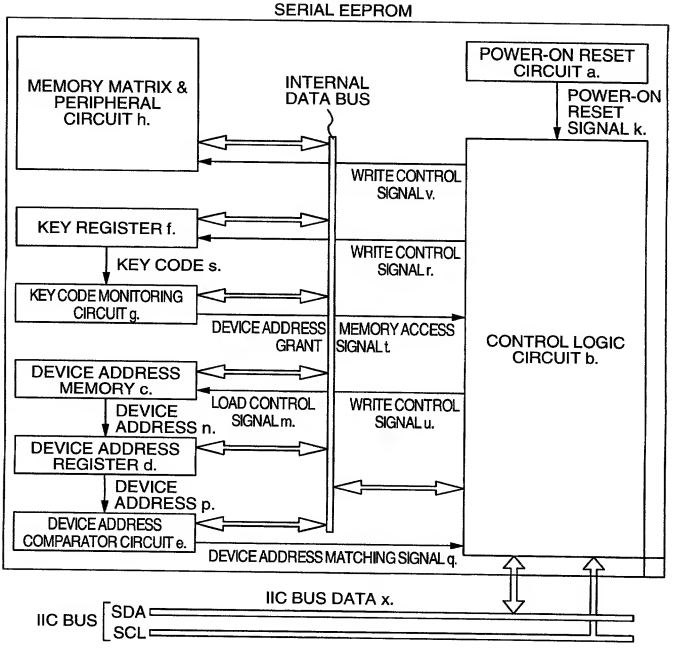
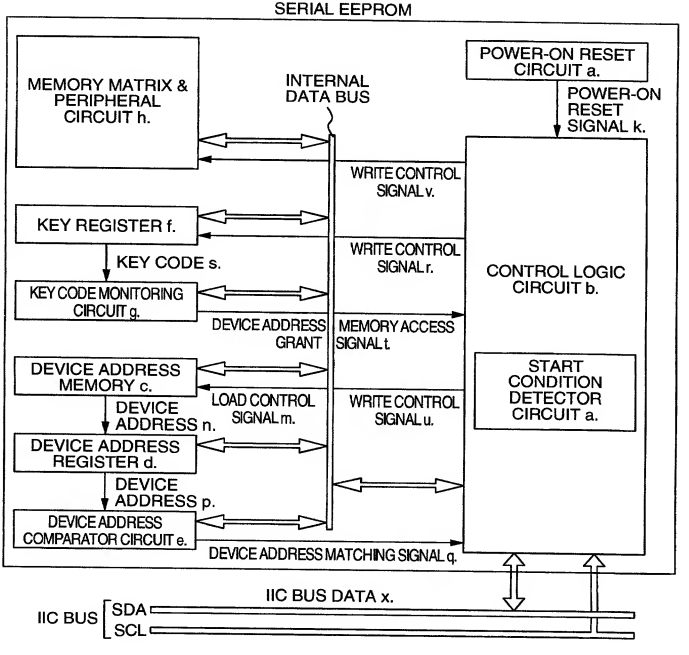


FIG. 9



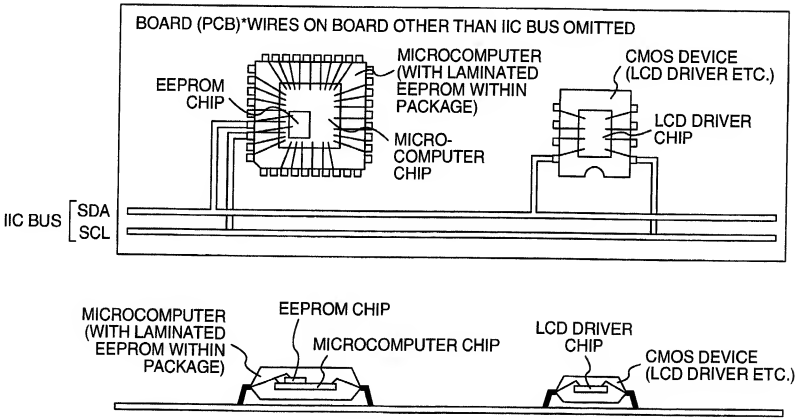
IIC BUS DATA x.	DEVICE ADDRESS WORD*	UPPER MEMORY ADDRESS	LOWER MEMORY ADDRESS	WRITE DATA
1	10100000	H' FF	H' 10	KEY CODE
2	10100000	H' FF	H' 09	xxxxx101
3	10101010	H' 00	H' 00	WRITE DATA

FIG.10


SERIAL EEPROM
MEMORY MATRIX & PERIPHERAL CIRCUIT h.
INTERNAL DATA BUS
POWER-ON RESET CIRCUIT a.
POWER-ON RESET SIGNAL k.
WRITE CONTROL SIGNAL v.
KEY REGISTER f.
KEY CODE s.
WRITE CONTROL SIGNAL r.
CONTROL LOGIC CIRCUIT b.
KEY CODE MONITORING CIRCUIT g.
DEVICE ADDRESS GRANT
MEMORY ACCESS SIGNAL t.
DEVICE ADDRESS MEMORY c.
START CONDITION DETECTOR CIRCUIT a.
LOAD CONTROL SIGNAL m.
WRITE CONTROL SIGNAL u.
DEVICE ADDRESS n.
DEVICE ADDRESS REGISTER d.
DEVICE ADDRESS p.
DEVICE ADDRESS COMPARATOR CIRCUIT e.
DEVICE ADDRESS MATCHING SIGNAL q.
IIC BUS DATA x.
IIC BUS
SDA
SCL

10h02T"hE000001

FIG. 11



US 6,000,034

FIG. 12

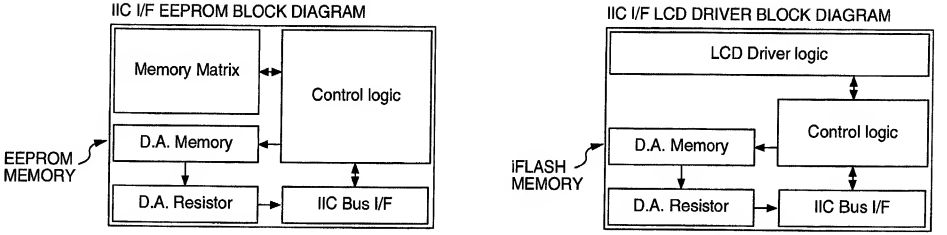
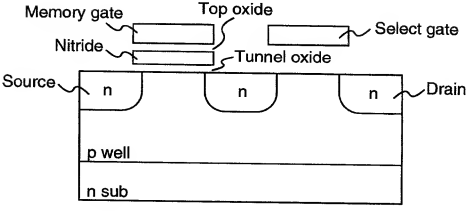
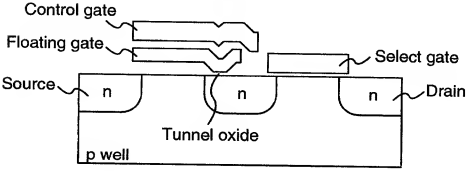


FIG. 13

MONOS MEMORY CELL



FLOTOX MEMORY CELL



iFLASH MEMORY CELL

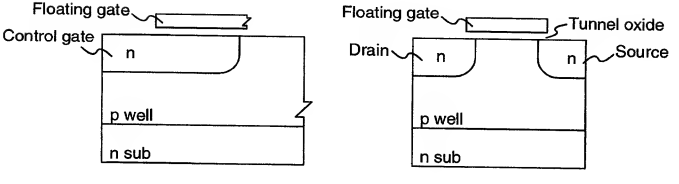
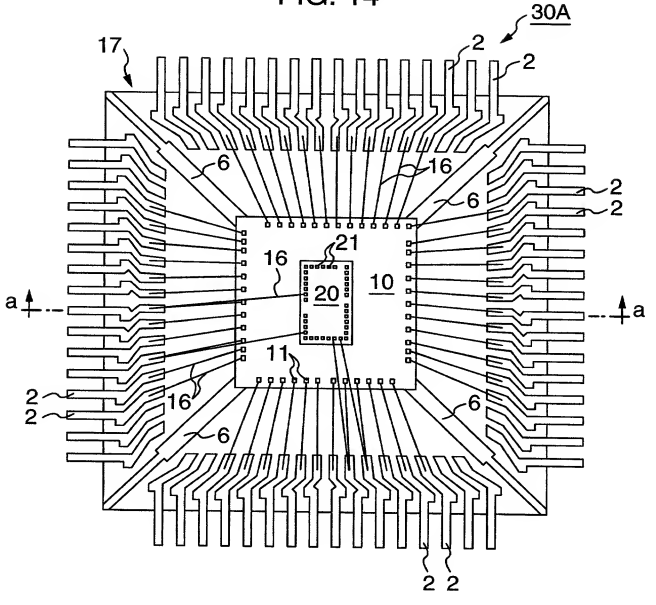
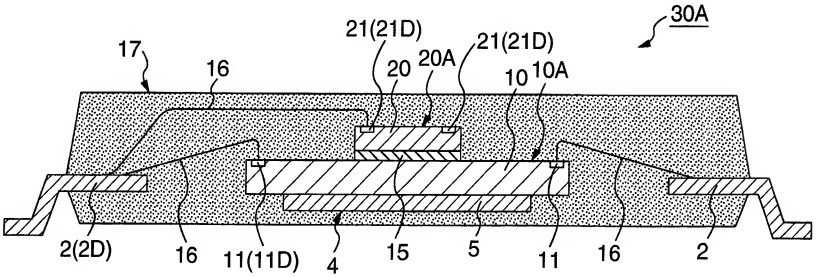


FIG. 14



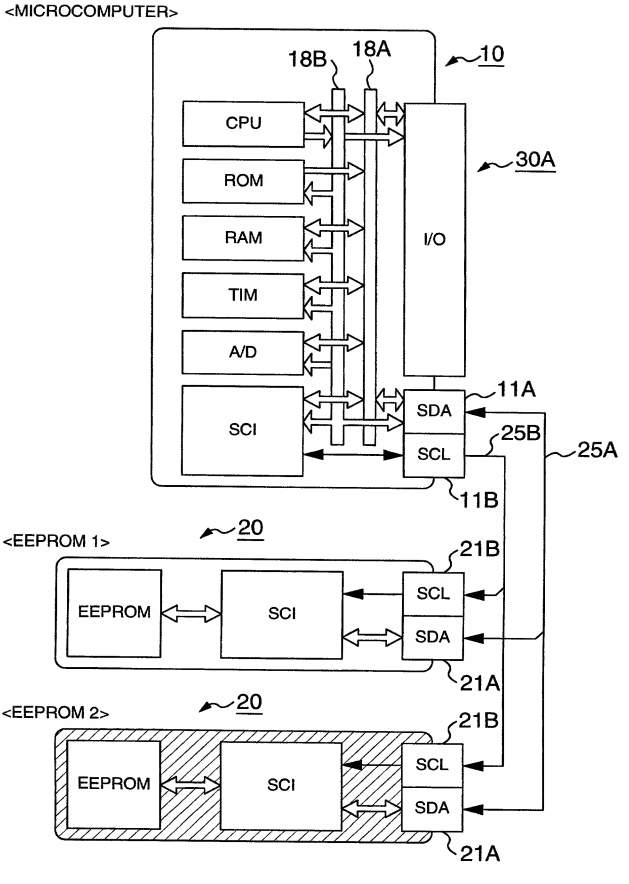
10427*4300001

FIG. 15



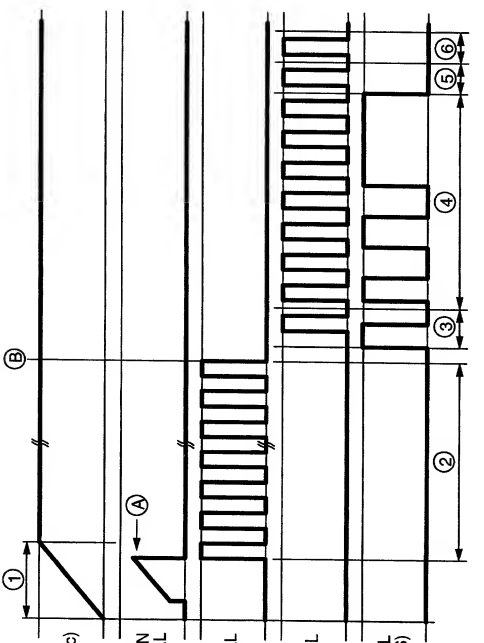
10000034 - 120401

FIG. 16



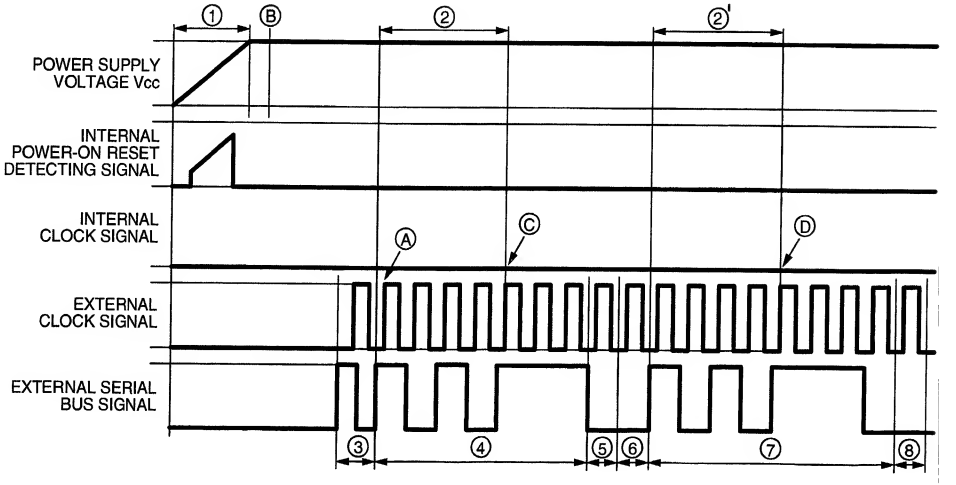
TOKEN "ACTIVE"

FIG. 17



TOHOZT'HE000001

FIG. 18



TOHZET "ACCUCOAT"

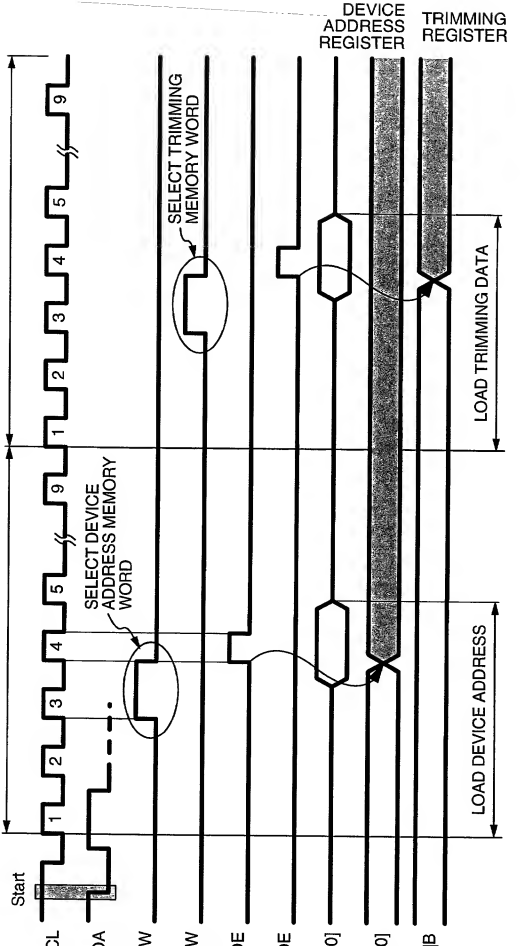



FIG. 19